Title (en)
Convoluted plate to reduce base drag.

Title (de)
Wellenplatte zur Verringerung des Bodensoges.

Title (fr)
Plaque ondulée pour réduire la traînée de base.

Publication
EP 0315563 A1 19890510 (EN)

Application
EP 88630116 A 19880630

Priority
US 11777087 A 19871105

Abstract (en)
A body (200) adapted to move downstream through a fluid has a downstream extending smooth surface (202) terminating at a blunt base (206). Extending transversely across the smooth surface (202) and disposed upstream of the blunt base (206) is a thin, downstream extending plate (210) closely spaced from the smooth surface (202). At least the downstream end portion of the plate (210) is convoluted such that its downstream end (216) is wave shaped. The convolutions are designed to generate pairs of counterrotating vortices (230,234;228,238) which delay boundary layer separation from the smooth surface (202) and cause fluid to flow into the space immediately behind the blunt base (206), reducing base drag on the body (200). The device generates very little drag of its own.

IPC 1-7
B62D 35/00; B64C 23/00

IPC 8 full level
B64C 21/10 (2006.01); **B62D 35/00** (2006.01); **B62D 37/02** (2006.01); **B64C 23/00** (2006.01); **F42B 10/22** (2006.01)

CPC (source: EP KR US)
B62D 35/00 (2013.01 - EP KR US); **B64C 23/00** (2013.01 - EP US); **F42B 10/22** (2013.01 - EP US)

Citation (search report)
- [Y] DE 3538253 A1 19870430 - PORSCHE AG [DE]
- [A] FR 2084952 A5 19711217 - VOLKSWAGENWERK AG
- [A] US 1864964 A 19320628 - VAILE PEMBROKE A
- [YD] D.S. WHITEHEAD et al.: "The reduction of drag by corrugating trailing edges", 1982, Cambridge University, GB;

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Designated contracting state (EPC)
DE FR GB IT SE

DOCDB simple family (publication)
US 4776535 A 19881011; DE 315563 T1 19891005; DE 3870155 D1 19920521; EP 0315563 A1 19890510; EP 0315563 B1 19920415; JP H01122784 A 19890516; KR 890007978 A 19890706; KR 950014419 B1 19951127; YU 115288 A 19920907

DOCDB simple family (application)
US 11777087 A 19871105; DE 3870155 T 19880630; DE 88630116 T 19880630; EP 88630116 A 19880630; JP 16406788 A 19880630; KR 880007145 A 19880615; YU 115288 A 19880614